COMMUNITY ALCOHOL AND DRUG ABUSE PREVENTION PROGRAMS EVALUATOR'S GUIDE

The Governor's Alliance Against Drugs

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To you who are concerned,

Massachusetts has substance abuse prevention programs of many kinds up and running in virtually every community in the state. Millions of dollars and countless hours are being expended in this essential struggle.

While there is no doubt that lives and human suffering are being spared as a result of this effort, an important set of questions must be continually raised: How many lives? How much suffering?

Our capacity to effectively continue substance abuse prevention programs depends largely on how well we can answer these questions. Only by being able to track substance abuse patterns over time can we measure the effectiveness of our efforts. Only by being able to detect changes which occur when programs are introduced are we able to make intelligent adjustments to further our goals.

In short, good prevention requires accurate feedback.

The purpose of this guide is to provide reliable, cost-effective means to capture this information. Collected here are pathways which will lead program evaluators to essential data.

The Governor's Alliance Against Drugs has the highest regard for the people and programs against substance abuse which have made our state a national leader in this field. We are pleased to be able to provide these evaluative tools, which can only build a stronger effort, wherever they are applied.

Georgette Watson

Georgette Watson
Executive Director

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INTRODUCTION

Objective

Today almost all Massachusetts communities have undertaken alcohol and drug abuse prevention programs in order to reduce the level of substance abuse among residents, particularly school age youth. Many of the programs involve community-wide coalitions; some are quite large in scope and are supported by outside funding sources. To date, eight Massachusetts communities have been awarded grants from the Office of Substance Abuse Prevention of the Department of Health and Human Services to develop such programs: Boston, Gloucester, Haverhill, Lowell, New Bedford, Salem, Springfield, and the tri-county consortium in Western Massachusetts. An additional five are in the process of receiving funds: Cambridge, Holyoke, Lawrence, Lynn, and Somerville. Worcester has acquired a similar grant from the Robert Wood Johnson Foundation, and six other communities in Massachusetts have applied for OSAP support in the next round of funding.

Throughout the United States, interest in preventing substance abuse is high. National public opinion surveys indicate that drug abuse is viewed as one of the three most urgent domestic problems. Whether or not they are conducting large-scale prevention programs, communities need to assess the nature and extent of drug and alcohol problems among residents. This can be accomplished by utilizing readily available data to serve as 'indicators' of substance abuse. Such an indicator

profile could be used in many ways: to track substance abuse trends in general; to detect changes which occur when programs are inaugurated; and to evaluate the long-term effects of these programs.

Prevention Programs

Although specific programs vary in detail and scope from community to community, all share the common goal of reducing drug and alcohol use. Indeed, most maintain certain common elements in philosophy and focus. A review of the literature on community- and school-based prevention plans indicates a historical shift in orientation from short-term informational and affective models to longer-term and more comprehensive agendas. The earlier models were based on a belief that people used alcohol and drugs because of an ignorance of their effects, low self-esteem, or poorly developed decision-making skills. Earlier prevention strategies concentrated on increasing knowledge regarding substance use, bolstering young people's confidence, and supporting their judgment and convictions. However, while overall substance use has decreased sharply in the school-age population, these specific approaches have not resulted in quantifiable changes which can be directly attributed to the programs. While we know that drug use has declined, we cannot explain why.

Currently, it is generally recognized that varied social pressures surround substance use and that resistance to these pressures must be part of an effective strategy for eliminating alcohol and drug problems in communities. In fact, many of the latest programs include the letter "R" in their names, identifying "resistance" as a primary focus of the prevention curriculum: Project DARE (Drug Abuse Resistance Education)(DeJong, 1987); Project STAR (Students Taught Awareness and Resistance)(Pentz, 1986); and Project ALERT (Adolescent Learning Experiences in Resistance Training)(Ellickson, 1988).

This newer social influence concept acknowledges the multitude of forces, both at school and at home, involved in drug and alcohol problems. It sees prevention as involving more comprehensive needs, and directs efforts at the convergence of positive messages from across the sectors. There has been a corresponding shift in the framework further away from a strictly school-based approach to one that links the school with parents and community resources. In fact, today a comprehensive agenda involves all the important "C's":

* **community** involvement in all phases;
* **coordination** among school, neighborhood and citizen organizations;
* **communication** between administrative agencies, service groups, and media;
* **cooperation** between supervisors and communities; and
* **commitment** to involving the prevention plan with the life of the neighborhood.

Goals and Organization

Many communities in the United States have begun the most difficult task of evaluating the success of such broad, multi-dimensional strategies. Although limited resources are often a problem, it is mandatory to examine the extent to which these programs are working and to determine the impact of the program on drug and alcohol abuse. Even in communities without prevention programs, there is an increasing interest in assessing drug and alcohol problems in order to understand their full impact and to develop interventions in the future.

An examination of the techniques utilized in the evaluation of existing programs shows that there are a limited number of methods that communities can use to assess substance abuse trends over time. We examined the major evaluation efforts which have been viewed as national models by federal and state government administrators. This report reviews their procedures, assimilating and adapting the best and simplest components. Over 15 evaluations were studied in this survey and are included for reference in the bibliography.

This report will describe a Management Information System (MIS) to be used to assess prevention program implementation and operation, along with a Community Substance Abuse Profile (CSAP) to indicate substance abuse trends in a community. The important questions that are answered by these two components about a community drug and alcohol prevention program are "what are we doing?" (the process), and "what have we accomplished?" (the

outcome). One aim of this report is to select those indicators and statistics relevant to these questions which are readily available to most planners at a minimum of cost and effort. The measures suggested in this evaluation guide represent, in large part, the wealth of data that is routinely collected by many organizations concerned with alcohol and drug problems.

MEASUREMENTS

Sources

Evaluation does not have to be a time consuming or costly process. By using data that is readily available or already collected by other groups, managers can maximize their own resources and still obtain valuable knowledge of abuse trends and of program effectiveness. A process evaluation can be completed by keeping adequate written records as a program is developed, and by creating and routinely using standardized forms. Simply listing each program activity as it is executed, noting the number of people and time needed to run it, and counting those who attend provide useful measures of effort and involvement.

While the process appraisal depends more on information accumulated within the agency itself, evaluations of outcome and of substance-related problems may be accomplished primarily by relying on external sources. We live in a society that routinely gathers numerous statistics. Law enforcement, health and social service bureaus keep databases rich with material applicable to the assessment of alcohol and drug use in communities. Most hospitals maintain uniform patient discharge records which indicate diagnoses of conditions related to alcohol or drug abuse. Lists of admissions to substance abuse treatment agencies may provide an idea of the extent of these problems in communities, as well as the requests for intervention. In addition, crime reports and arrest data indicate frequencies of alcohol or drug-related offenses. All of these sources, and

others, can be tapped by evaluators, both as indications of the trends in substance abuse over time and as helpful comparisons with prevalences in other areas and communities.

It should be cautioned, however, that each measure discussed may reflect something other than what is obvious only at the surface. The collection of statistics often depends on many extraneous factors. For example, arrest data may indicate criminal activity, but is also a result of the level of law enforcement and the availability of enforcement agents. Similarly, treatment statistics are an indication of the extent of illness, but also of the capacity of the treatment system. The total profile of indicators needs to be examined for an understanding of the nature and scope of community alcohol and drug problems.

Suggested Measurements

The following is a summary of the range of measures that can be used in assessments of substance use trends and of alcohol and drug prevention programs. All have been used by one or more of the programs that we reviewed in compiling this report. It may be helpful for communities to examine these suggestions together and decide upon common, useful measures that should be tracked over time by each of them. In fact, much could be gained if the OSAP funded project communities shared conventional program indicators. Measures for the MIS and CSAP are specified separately. The MIS focuses on process evaluation and suggests

ways of compiling useful statistics for assessing program implementation. The CSAP includes outcome measures which are valid for establishing baseline figures, for estimating follow-up values, and in general, for gauging substance abuse problems.

The Management Information System

An MIS may be developed to answer questions regarding the activities undertaken to achieve program goals. This may concern areas such as effort necessary to conduct various endeavors and involvement of the groups for whom these endeavors were targeted. The following is meant to be a comprehensive description of all aspects of a process evaluation. Evaluators are encouraged to choose among the methods listed and adapt them where appropriate to correspond best with program needs and resources. There is no single prescribed way to collect and maintain the information described below. Decisions regarding such matters should depend on the existing office system and procedures. However, some suggestions are provided for guidance purposes in the next section on evaluation methods and in Appendices A and B.

1 - **Effort expended**: the evaluator should maintain a record of the activities pursued by the program and the amount of work needed to accomplish them. Relevant information could include:

a) projects-list all project activities performed over the time period studied

b) staff-specify the number of people used to conduct each activity

c) volunteers-indicate number of volunteers utilized by programs

d) hours-calculate total hours worked by staff and volunteers during each project

e) materials-record all materials necessary for implementation of projects

f) cost-determine total cost of each activity, including materials and personnel

2 - **Community involvement**: it is important to understand how many people are participating in programs and activities as well as who those people are. Important features may be:

a) attendance-record number of people who attended or participated in functions and the total number of hours of their participation

b) demographics-note age, sex, race, socioeconomic status, place of residence of participants

3 - **Satisfaction**: evaluators should be interested in knowing the opinions of leaders and participants regarding the mechanics and success of program implementation. Surveys such as the following can be of use:

a) participant surveys to obtain feedback from attendees on satisfaction with programs, simple questionnaires can be administered to attendees and participants at each activity

b) leader surveys-those who conducted projects (internal and external staff) can be queried concerning their perceptions and satisfaction with the program and the effectiveness of the approach used

4 - **Communication**: evaluators may want to consider the extent of contact and cooperation fostered by the program between groups involved in the program.

a) referrals-indicate number of clients/patients referred to self-help and treatment centers by involved organizations

b) exchanges-note quantity of information (e.g., pamphlets) exchanged between interested parties (a sample questionnaire is provided in Appendix B)

5 - **Visibility**: an important part of program implementation involves the extent of public notice given to planned events and program concepts.

a) newspaper-count newspaper advertisements/articles pertaining to prevention efforts

b) television-identify number of advertisements/telecasts regarding program endeavors, this may include both public and private (cable) networks

c) notices-list number of flyers/announcements distributed concerning alcohol/drug abuse prevention

d) community surveys-general knowledge of both program goals and events should be included as items in any community surveys administered

Community Substance Abuse Profile

The CSAP can be used for the outcome evaluation of prevention programs to learn whether program goals are realized and changes in substance abuse patterns are achieved. The CSAP is also of value in communities without prevention programs for the purposes of tracking substance abuse trends over time. The following indicators should be examined periodically, and, in order to be of use in program evaluation, before, during and after program implementation.

Individual statistics for different neighborhoods and ethnic groups may be compared to understand trends according to demographic correlates and level of program activity or participation. In this way, these indicators can also help to

identify which groups in the community are being reached by prevention efforts. Furthermore, the total CSAP of one community can be related to other communities which are utilizing different programs to compare the effectiveness of program approaches. However, all of these indicators should take into account the population base and should be calculated in terms of population rates and not absolute numbers. The following measures comprise the basic parts of a CSAP:

1 - <u>Illness patterns</u>: One way in which substance abusers become known in a community is through their contact with the health care system.

a) treatment for substance abuse-records of admissions to treatment centers for alcohol or drug addiction are maintained by the Massachusetts Department of Public Health, Division of Substance Abuse. These records are analyzed regularly according to geographic location.

b) substance abuse-related admissions to general hospitals-a number of conditions which require hospital treatment are related to substance abuse. These can be obtained using the uniform hospital discharge dataset, a coded diagnostic record kept by most hospitals. Relevant conditions include certain diseases of the liver, viral hepatitis B, alcohol dementia, and drug withdrawal syndrome (a complete list of applicable codes has been compiled by the Massachusetts Department of Public Health and is included in Appendix F). Demographic information: age, race, sex, geographic location of patients may also be assessed through the discharge data.

c) alcohol or drug affected births-infants born with drug dependence or fetal alcohol syndrome are registered in the hospital discharge dataset (codes for these diagnoses are also included in Appendix F).

d) cautions-hospital discharge data may list only the most obvious cases of alcohol/drug related illnesses, also demographic data is sometimes incomplete.

2 - **Death patterns**: In the same way that certain illness patterns may represent effects of substance use in the community, deaths due to drug- and alcohol-related causes can help enumerate the extent of abuse among residents.

a) associated deaths-number of deaths with causes related to alcohol or drug use can be ascertained through death certificates, or by statistics kept in the Department of Public Health, Bureau of Health Statistics (death certificates are coded similarly to the hospital discharge lists and the codes in Appendix F are all applicable). Demographic information: age, race, sex, geographic location of deceased may be available using these same sources.

b) cautions-causes of death attributable to substance abuse are often missed and go unreported in these sources.

3 - **Criminal activity**: another way to measure the impact of substance abuse in the community is to examine legal offenses of residents associated with drug and alcohol use.

a) court filings-district courts maintain estimates of numbers of complaints filed for driving under the influence, narcotics charges, etc.

b) crime reports-number of arrests for sale and possession of drugs, driving under the influence, drug-related murders, disorderly conduct, and liquor law violations are kept by US Department of Justice, Federal Bureau of Investigation, Uniform Crime Reporting Program (UCRP), according to region of arrest. This information can be directly accessed by calling UCRP user services, (202) 324-5015.

c) accidents-accidents caused by drug or alcohol use are registered in the Fatal Accident Reporting System kept by the Department of Transportation. Tapes are available with data including location of accident, demographic information on the driver, and other pertinent details. A sample of the forms used to collect findings is in Appendix G.

d) cautions-many of these statistics may depend on factors such as patrol time, the variable attention

given to different offenses, and incomplete reporting. Also, federal listings do not include data from county sheriffs or state police but only from local law enforcement agencies.

4 - **Self report**: the community's substance use habits may be individually assessed by questioning both prevention program participants and a random sample of the general population at one or over several time periods.

a) surveys-program effectiveness can be assessed through questionnaires examining reported substance use, both in activity participants themselves and in the general public. Surveys can be distributed at specified time intervals to determine trends in use or one can ask for self-reports of behavior modifications over a specific time. Both the federal and state governments conduct routine surveys of drug and alcohol intake in regions of this country and may provide useful comparisons for evaluation programs. In order to facilitate such comparisons, prevention programs may want to model their surveys after the government designs (see samples in Appendices C and D, and bibliography for references).

METHODS

Planning an Evaluation

In designing an evaluation, it is important to understand the strengths and limitations of any assessment system. Although the process evaluation is critical to measuring program implementation, a working process does not guarantee that the desired effects are being achieved. The outcome evaluation, which is used to judge such concerns, however, is not sufficient by itself. Desired effects may be achieved despite an inefficient system. In fact, even if a community's rates of substance abuse decrease markedly, these changes may be due to factors other than the intervention, e.g., an overall, national increase in alcohol prices.

The basic scientific design which is needed to establish that a community program has produced a change in substance use would require control communities without a program, random assignment of some communities to the program, and adequate pre- and post-intervention measures. This rigorous type of evaluation can only be conducted on a national level. It is adequate, for a local evaluation, to assess appropriate outcome measures over time. However, long-term evaluations are usually necessary and should be provided for, especially during the first stages of implementation, in order to represent a complete picture of the trends in substance use associated with the prevention program. Often, the attention given to abuse-related problems by prevention programs results in a short-term increase in

prevalence due to the greater perceived need for services and better record-keeping by freshly motivated individuals.

Doing an Evaluation

In this part of the report, practical suggestions will be given for designing the MIS and CSAP components of an evaluation system. Depending on the needs of the particular community involved, different aspects may be emphasized or ignored. Sample worksheets and statistics that may give further direction in collecting the necessary information are provided in the appendices. These were compiled from manuals and surveys done by the Federal Office for Substance Abuse Prevention (OSAP, 1990, Linney, 1991), the Public Health Service (DHHS, 1989, 1990) and the Massachusetts Department of Public Health (McCarty, 1990).

The evaluation procedure actually begins before the prevention program has been initiated. At first, it is necessary to outline the goals of the program, so that appropriate baseline measures can be chosen to indicate the achievement of those aims. Goals should be as specific as possible. This will make selection of measures easier and, ultimately, more appropriate to real program needs. A worksheet designed by OSAP is supplied in Appendix A and may be referred to for guidance in launching this aspect of the evaluation.

The Management Information System:

The MIS, at its simplest, will be a detailed documentation of the program's activities. Details should be recorded on program operation: publicity applied, staff employed, hours worked, etc. Note should be made of any changes in the anticipated schedule and the reasons for the change. In addition, it is helpful to try and document leader and participant reactions as a way of understanding exactly what was immediately effective and why. OSAP worksheet, step two, in Appendix A gives one possible model for collecting the necessary information.

The Pawtucket Heart Health Program (PHHP), a community plan to prevent cardiovascular disease also supplies some ideas for easily generating and maintaining process data (McGraw, 1989). Several strategies are used by this program. Activity files are kept containing information on the date, place, type, and nature of each activity, along with the number of participants. An organization file tracks each group that is associated with PHHP. A contact file identifies every participant in PHHP activities through a form that is distributed to attendees at the start of each project. The form asks for the age, gender, race, residence and any other relevant material the person is willing to furnish. In addition, several telephone surveys are conducted biannually both with associated organizations and area residents. These question people on risk behaviors and perceptions of program activity. Instructions for preparing a telephone survey are

provided in Appendix E. Of course, all of these strategies need not be implemented. At the minimum, the following features should be recorded:

1) **Establish goals**-
   * clearly delineate all the objects of the prevention program;
   * include both major and minor ambitions.

2) **List activities and attention allotted**-
   * make and maintain a list of the important activities of each project goal (revise as necessary over time, making note of revisions);
   * note visibility of project using measurements chosen above (i.e., number of newspaper advertisements);
   * recognize deficiencies and possible improvements.

3) **Identify resources**-
   * note people, time and materials needed for project implementation;
   * indicate any adjustments required.

4) **Estimate participation**-
   * focus on who attended sessions;
   * observe age, sex, and ethnic or minority groups represented;
   * remark any deviations from anticipated attendance;
   * identify ideas for improving future participation.

5) **Assess response to project**-
   * observe leader and participant enthusiasm;
   * question those involved when possible;
   * generate feedback for better success in prospective schedule.

The Community Substance Abuse Profile:

Ultimately, any prevention program needs to know if its initiatives are reducing evidence of substance use in the targeted population. Furthermore, most communities should be aware of drug and alcohol abuse by their residents and the trends in problems associated with consumption. Statistics should be observed over a chosen interval (e.g., every six months) and a

procedure must be instituted to continue tracking these observations throughout the life of the program, and beyond. Numbers should be contrasted not only with previous time periods but also with other communities having similar demographic characteristics and absent or different intervention programs. This may give an idea of the extent of change in the CSAP, and demographic characteristics related to the change. Records must be kept separately for each indicator that the community has decided to use. Averages and rates can be computed by looking at total population in an area compared to numbers of patients, deaths, etc. Tables and charts may be generated for ease of analysis and comparison. The samples of visual aides in Appendices C and D were done by government agencies and should provide ideas of the ways this data can be collected, analyzed and presented.

APPENDICES

The following forms have been compiled from various evaluation guides written by federal and state government agencies. These should provide assistance to evaluators in designing their own methods for data collection and analysis throughout the evaluation process. The specific documents included here are:

A) Process evaluation worksheets, from Prevention Plus III manual (Linney, 1991).

B) Questionnaire for assessing extent of communication between involved organizations for process evaluation (Linney, 1991).

C) Graphs and tables for outcome evaluation, from Indicators of Substance Use in Massachusetts (McCarty, 1990).

D) Graphs and tables for outcome evaluation, from national surveys (DHHS 1989, 1990).

E) Instructions for telephone surveys (Linney, 1991).

F) International Classification of Diseases (ICD) codes of alcohol- and drug-related diagnoses.

G) Fatal Accident Reporting System forms.

APPENDIX A:

PROCESS EVALUATION WORKSHEETS

Source: Linney JA and Wandersman A, Prevention Plus III. Evaluating Alcohol and Other Drug Prevention Programs at the School and Community Level: A Four Step Guide to Useful Evaluation. 2nd Edition. Rockville, MD: NCADI, 1991. (Draft)

STEP 1: Identify Goals and Desired Outcomes

program type

Part a) Make a list of the primary goals of the program. Ask yourself "what were we trying to accomplish"? Of the goals listed, check the ones that apply to your program and add any others on the lines provided.

___ _____
___ _____
___ _____
___ _____
___ _____
___ _____
___ _____
___ _____

Part b) What groups did you WANT to involve? Ask yourself: "Who were we trying to reach?" Of the groups listed, check the ones that apply to your program and add any others on the lines provided.

	Target Group	How many did you <u>want</u> to involve?
___	_____	_____
___	_____	_____
___	_____	_____
___	_____	_____
___	_____	_____
___	_____	_____
___	_____	_____

Part c) What outcomes were desired?
Ask yourself: As a result of this program how would you like the participants to have changed? What would they learn, what attitudes, feeling or behavior would be different? Of the outcomes listed, check the ones that apply to your program and add any others on the lines provided.

___ _____
___ _____
___ _____
___ _____
___ _____

STEP 2: Process Evaluation Worksheet

program type

Part a) What activities were planned?
(Include a brief description of the components of the program. Ask yourself: What did we actually do to prepare for this and implement it? Form a chronology of events constituting this program and a quantity indicator for each.)

Activity	Date	Quantity Planned	Quantity Actual

Quantity Totals:

# of sessions _____(s) length of time for each _____(h)
total hours of activity (s x h) _____

What written materials were available? Total distributed
____ manuals, brochures _____ _____
____ other _____ _____

Other services delivered:

_____
_____

What topics or activities were planned but were not covered?
What happened that these did not get accomplished?

Activity Problem

_____
_____
_____

Part b) When was the program actually implemented (dates of activities, length of time for each) and who were the participants?

Date	Length of the activity	% of time goal	Attendance	% of attendance goal
Total #	Total hrs	% of goal	Total # (average of	all sessions)

Who was missing that you'd hoped to have participate in the program?

___ _____
___ _____
___ _____

What explanations can be offered for the discrepancy between the projected and the actual participation?

___ _____
___ _____
___ _____

Part c) How did participants evaluate the activities?

Part d) What feedback can be used to improve the program for the future?

APPENDIX B:

QUESTIONNAIRE FOR PARTICIPATING ORGANIZATIONS

Source: Linney JA and Wandersman A, Prevention Plus III. Evaluating Alcohol and Other Drug Prevention Programs at the School and Community Level: A Four Step Guide to Useful Evaluation. 2nd Edition. Rockville, MD: NCADI, 1991. (Draft)

Network Analysis Questionnaire (M40)

Dear _____,

In our efforts to measure how drug-prevention activities are being coordinated and implemented in your community, we would like to ask you to assist us in making our records more complete.

Attached is a list of many possible agencies, organizations, groups, and individuals that might be involved in some aspect of drug prevention - at the State, Regional/District, and Local levels. Please go through the list and answer the three questions given below (and abbreviated at the top of each page), for as many of the listings as you can. You need to answer Question 2 and 3 for each listing only if you are able to answer Question 1.

This task should take about 10-15 minutes - thank you for your cooperation.

Question 1: If you know the person(s) in this agency, group, or role (if any) who is involved in drug prevention/education, please write their name. ONLY GIVE NAMES OF PEOPLE WHO ARE ACTIVELY INVOLVED IN DRUG PREVENTION/EDUCATION EFFORTS.

Question 2: How many times have you talked with this person about drug prevention/education in the last year?

Question 3: How many times have you talked with this person about drug prevention/education in the last month?

* * * *

PLEASE COMPLETE THE FOLLOWING INFORMATION:

NAME: _____

STATE: _____

AGENCY: _____

POSITION: _____

NOTE: ON THE FOLLOWING PAGES, IF YOU WANT TO GIVE MORE THAN ONE NAME FOR ANY LISTING, PLEASE WRITE ON BACK AND ANSWER THE SAME QUESTIONS FOR THEM.

STATE LEVEL

	Name of person involved in drug prev/educ?	Times you have talked to in last year?	Times you have talked to in the last month?
Governor			
Director of "Governor's Initiative"			
Attorney General's Off			
U.S. Senator			
Dept. of Education			
School Superintendent			
DEA Reduction Officer			
Dept. of Justice Juvenile Rep.			
Dept of Mental Health/Mental Retardation			
Coordinator of DHR or Public Health (A&D)			
State Legislators or Legislative Comm.			
Children's Council/ Serv.			
College of Univ. Program			
State PTA Chairperson			
State School Board			
State Highway/ Patrol			

STATE LEVEL

	Name of person involved in drug prev/educ?	Times you have talked to in last year?	Times you have talked to in the last month?
State 4-H Office			
State Boy Scouts Office			
Civic/Service Assoc.			
Student Organizations			
Professional Organ.			
NEA Student Affiliate			
Religious Organ.			
Private Sector			
Please list any additional State Level agency, group, or role, and answer the same 3 questions:			

REGIONAL/DISTRICT LEVEL	Name of person involved in drug prev/educ?	Times you have talked to in last year?	Times you have talked to in the last month?
U.S. Congressperson			
Educational Specialists (RESA)			
Private/Public Treatment Programs			
CADRE			
Additional Regional/ District Level:			

LOCAL LEVEL

Mayor			
City Councilpersons			
County Councilpersons			
School Board Chair			
CADRE			
Superintendents			
Principals			
Counselors			
Curriculum Coordinator			

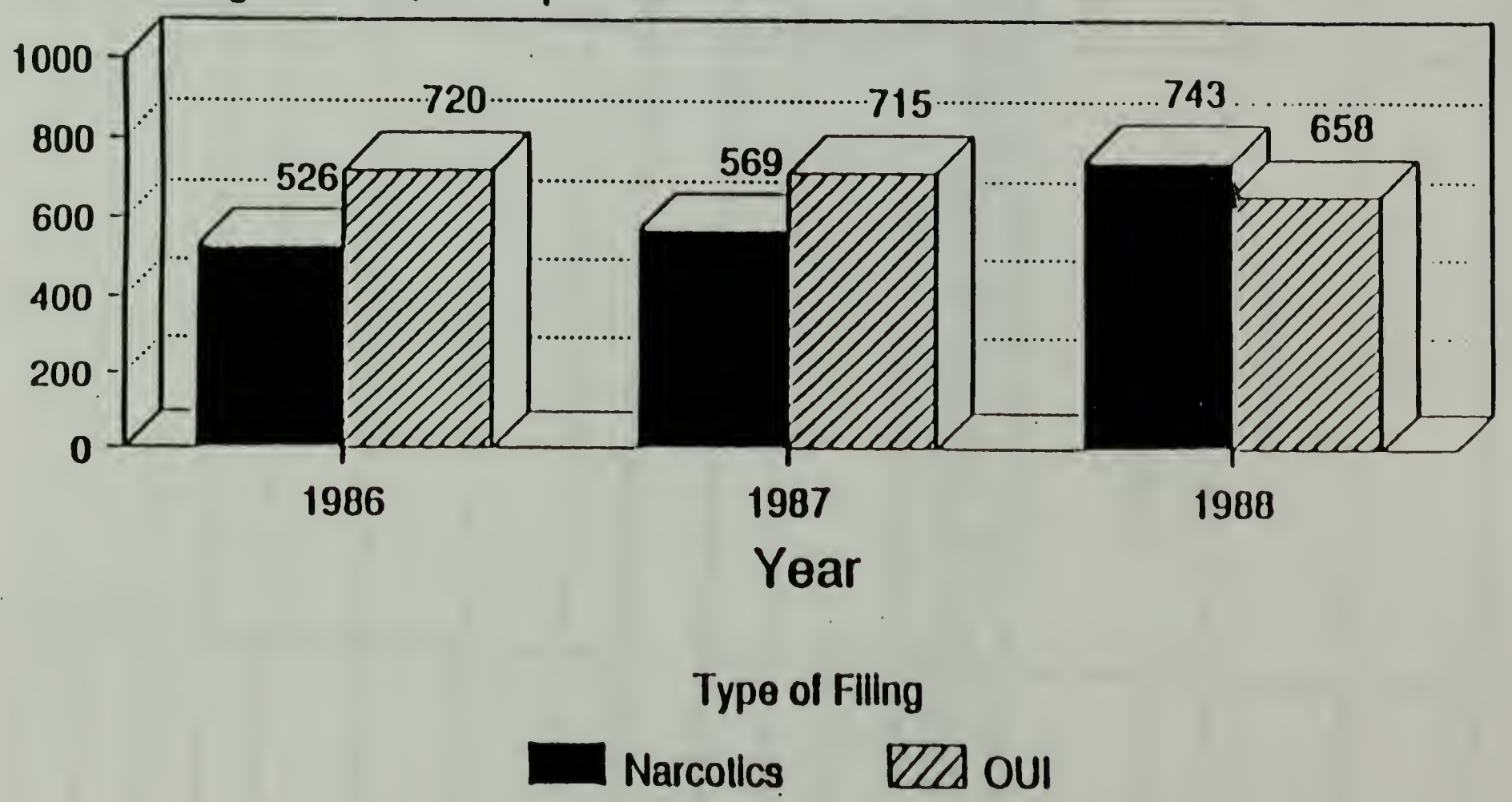
APPENDIX C:

OUTCOME EVALUATION

INDICATOR PROFILES

Source: McCarty D, Hofmann MB, Williams CN, Krakow M, Steriti L, "Indicators of Substant Use in Massachusetts." Massachusetts Department of Public Health, Division of Substance Abuse Services, 1990.

District Court OUI and Narcotics Filings
Rate Per 100,000 Population Per Year
Massachusetts: 1986 - 1988



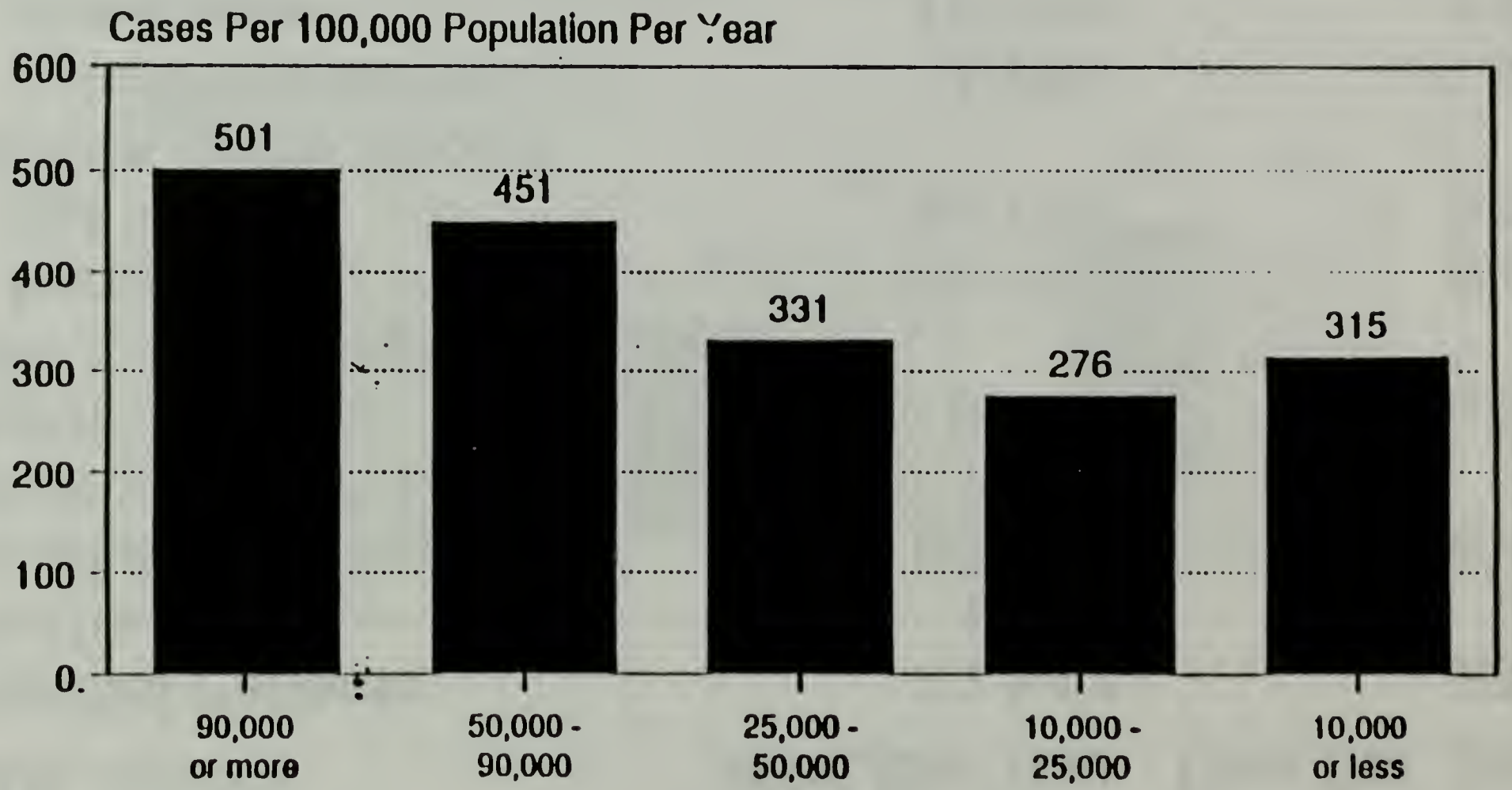
Source: Annual Report of the Massachusetts Trial Court

Substance Use in Massachusetts
Statewide Figures For 11 Indicators

Data Source	Total Per Year	Rate Per Year
Hospital Patients	21,642	371
Deaths	1,940	33
Treatment Admissions	96,493	1649
Weekly AA/NA Meetings	1,803	31
Liquor Licenses	9,732	166
Dist. Court Filings		
Narcotics	35,809	613
OUI	40,755	698
Uniform Crime Report		
Sale/Manufacture	4,766	82
Possession	12,275	210
Liquor Law	8,358	143
DUIL	26,310	450

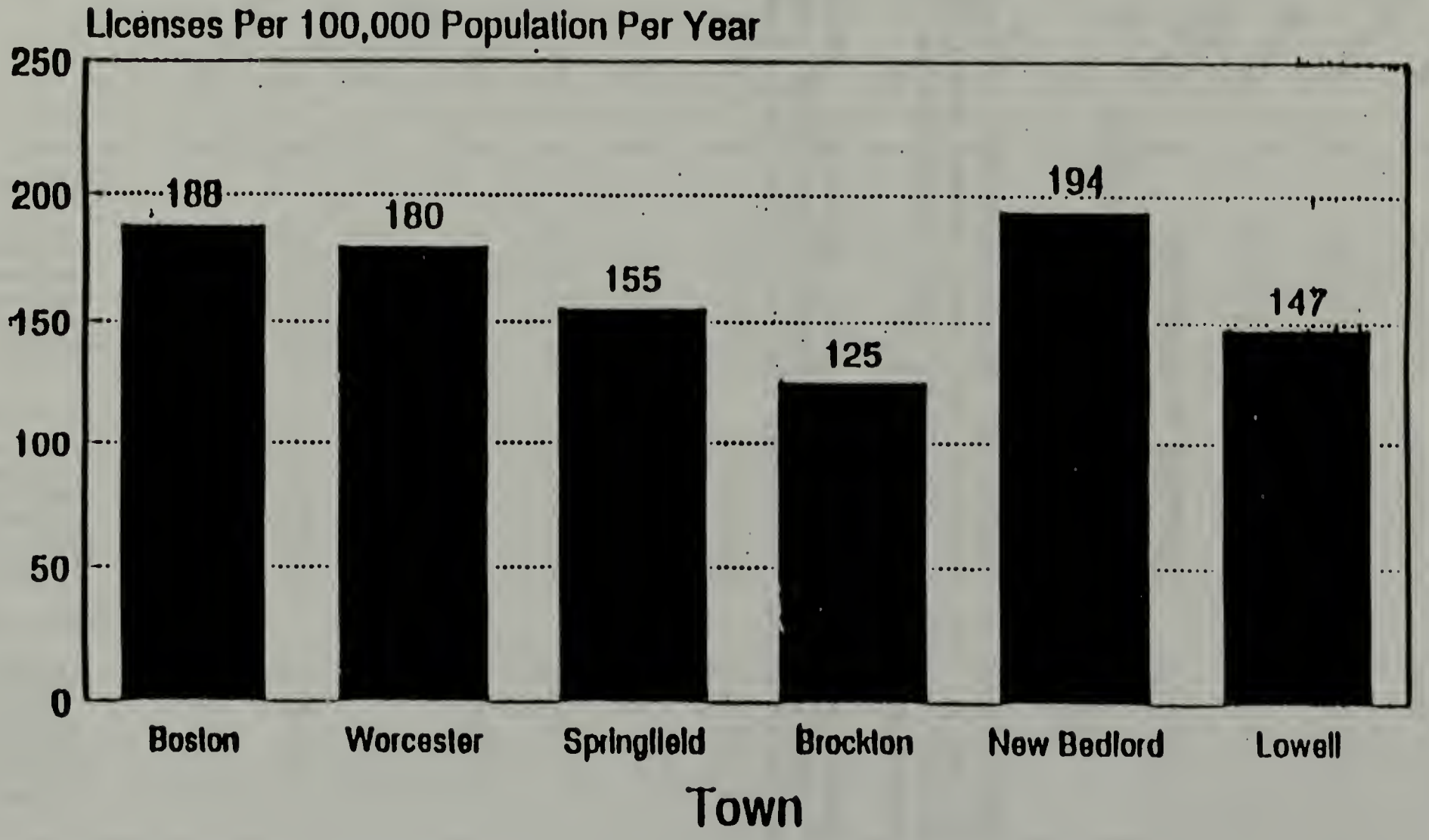
Rate Per Year = Rate Per 100,000 Population

Substance Abuse Related Hospital Cases
By Size of Community in Rate Per 100,000
Average Per Year - 1985 through 1987



Source: Uniform Hospital Discharge Dataset, Hospital Rate-Setting Comm.

Liquor Licenses Issued
Towns of 90,000 Population or More
Rate Per Year - 1986, 1987, & 1989



Source: Massachusetts Alcohol Beverage Control Commission

APPENDIX D:

OUTCOME EVALUATION

SURVEYS OF ATTITUDE AND BEHAVIOR

Source: Department of Health and Human Services. Drug Use, Drinking, and Smoking: National Survey Results from High School, College, and Young Adult Populations 1975-1988. Washington DC: DHHS, 1989.

Department of Health and Human Services. National Household Survey on Drug Abuse: Highlights 1988. Washington DC: National Institute on Drug Abuse, 1990.

Lifetime, Annual and Thirty-Day Frequency of Use of Seventeen Types of Drugs, Class of 1988

(Entries are percentages)

	Marijuana	Inhalants [a]	Amyl/Butyl Nitrites	Hallucinogens [a]	LSD	PCP	Cocaine [b]	"Crack" [b]	Other Cocaine [b]	Heroin	Other Opiates	Stimulants [c] (adjusted)	Sedatives	Barbiturates	Methaqualone	Tranquilizers	Alcohol
Approx. N =	16300	13000	3300	16300	16300	3300	16300	6500	3300	16300	16300	16300	16300	16390	16300	16300	16300
Lifetime Frequency																	
No occasions	52.8	83.3	96.8	91.1	92.3	97.1	87.9	95.2	87.9	98.9	91.4	80.2	92.2	93.3	96.7	90.6	8.0
1-2 occasions	12.4	9.3	1.5	3.6	3.6	2.0	5.3	2.8	6.1	0.7	4.1	8.2	3.5	3.5	1.9	5.0	7.7
3-5 occasions	7.4	3.3	0.6	2.0	1.5	0.4	2.1	0.6	2.0	0.2	2.0	3.8	1.8	1.2	0.5	2.0	9.2
6-9 occasions	5.1	1.4	0.4	1.0	0.9	0.1	1.2	0.5	1.2	*	0.8	2.2	0.8	0.7	0.3	0.8	9.1
10-19 occasions	6.2	1.3	0.2	1.1	0.8	0.2	1.2	0.3	1.2	0.1	0.7	2.0	0.6	0.5	0.2	0.6	13.3
20-39 occasions	4.9	0.5	0.2	0.4	0.4	0.1	0.8	0.2	0.7	0.1	0.4	1.3	0.4	0.4	0.1	0.3	14.5
40 or more	11.2	0.9	0.2	0.7	0.5	0.2	1.5	0.4	0.9	0.1	0.7	2.3	0.7	0.5	0.3	0.5	38.2
Annual Frequency																	
No occasions	66.9	93.5	98.3	94.5	95.2	98.8	92.1	96.9	92.6	99.5	95.4	89.1	96.3	96.8	98.7	95.2	14.7
1-2 occasions	11.3	3.7	1.1	2.6	2.7	0.7	3.6	1.7	3.5	0.3	2.6	5.2	1.9	1.8	0.7	3.0	15.8
3-5 occasions	6.2	1.1	0.1	1.5	1.0	0.1	1.4	0.5	1.6	*	0.9	1.9	0.7	0.5	0.2	0.8	13.7
6-9 occasions	3.8	0.6	0.1	0.7	0.5	0.1	0.9	0.3	0.7	*	0.4	1.4	0.3	0.3	0.1	0.4	12.3
10-19 occasions	3.9	0.5	0.2	0.4	0.3	0.1	0.9	0.3	0.9	0.1	0.4	1.1	0.3	0.3	0.1	0.3	15.6
20-39 occasions	2.7	0.2	0.1	0.1	0.1	–	0.5	0.1	0.3	*	0.1	0.6	0.1	0.1	*	0.2	12.2
40 or more	5.2	0.3	0.1	0.1	0.1	0.1	0.6	0.2	0.4	*	0.2	0.7	0.2	0.2	0.1	0.2	15.7
Thirty-Day Frequency																	
No occasions	82.0	97.4	99.4	97.8	98.2	99.7	96.6	98.4	96.8	99.8	98.4	95.4	98.6	98.8	99.5	98.5	36.1
1-2 occasions	7.7	1.6	0.3	1.5	1.4	0.2	1.8	0.9	1.8	0.1	0.9	2.4	0.8	0.7	0.3	0.9	25.1
3-5 occasions	3.5	0.3	*	0.5	0.3	0.1	0.7	0.3	0.6	*	0.3	0.9	0.3	0.3	0.1	0.3	17.0
6-9 occasions	2.2	0.3	0.1	0.1	0.1	--	0.4	0.2	0.3	*	0.2	0.6	0.1	0.1	*	0.1	10.1
10-19 occasions	1.9	0.2	0.1	0.1	*	–	0.3	0.1	0.3	*	0.1	0.3	0.1	0.1	*	0.2	7.4
20-39 occasions	1.3	0.1	0.1	*	*	*	0.1	0.1	0.1	*	*	0.2	*	*	*	*	2.4
40 or more	1.4	0.1	*	*	*	*	0.1	*	0.1	*	0.1	0.1	0.1	*	*	*	1.8

NOTE: * indicates less than .05 percent. – indicates no cases in category.

[a] Unadjusted for known underreporting of certain drugs. See text for details.

[b] Cocaine data based on five questionnaire forms, "crack" data based on two questionnaire forms, and other cocaine data based on one questionnaire form.

[c] Based on the data from the revised question, which attempts to exclude the inappropriate reporting of non-prescription stimulants.

Trends in Harmfulness of Drugs as Perceived by Seniors

Q. *How much do you think people risk harming themselves (physically or in other ways), if they . . .*	Percentage saying "great risk"[a]														
	Class of 1975	Class of 1976	Class of 1977	Class of 1978	Class of 1979	Class of 1980	Class of 1981	Class of 1982	Class of 1983	Class of 1984	Class of 1985	Class of 1986	Class of 1987	Class of 1988	'87–'88 change
Try marijuana once or twice	15.1	11.4	9.5	8.1	9.4	10.0	13.0	11.5	12.7	14.7	14.8	15.1	18.4	19.0	+0.6
Smoke marijuana occasionally	18.1	15.0	13.4	12.4	13.5	14.7	19.1	18.3	20.6	22.6	24.5	25.0	30.4	31.7	+1.3
Smoke marijuana regularly	43.3	38.6	36.4	34.9	42.0	50.4	57.6	60.4	62.8	66.9	70.4	71.3	73.5	77.0	+3.5ss
Try LSD once or twice	49.4	45.7	43.2	42.7	41.6	43.9	45.5	44.9	44.7	45.4	43.5	42.0	44.9	45.7	+0.8
Take LSD regularly	81.4	80.8	79.1	81.1	82.4	83.0	83.5	83.5	83.2	83.8	82.9	82.6	83.8	84.2	+0.4
Try PCP once or twice	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	55.6	58.8	+3.2s
Try cocaine once or twice	42.6	39.1	35.6	33.2	31.5	31.3	32.1	32.8	33.0	35.7	34.0	33.5	47.9	51.2	+3.3s
Take cocaine occasionally	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	54.2	66.8	69.2	+2.4
Take cocaine regularly	73.1	72.3	68.2	68.2	69.5	69.2	71.2	73.0	74.3	78.8	79.0	82.2	88.5	89.2	+0.7
Try "crack" once or twice	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	57.0	62.1	+5.1ss
Take "crack" occasionally	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	70.4	73.2	+2.8
Take "crack" regularly	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	84.6	84.8	+0.2
Try cocaine powder once or twice	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	45.3	51.7	+6.4sss
Take cocaine powder occasionally	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	56.8	61.9	+5.1ss
Take cocaine powder regularly	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.4	82.9	+1.5
Try heroin once or twice	60.1	58.9	55.8	52.9	50.4	52.1	52.9	51.1	50.8	49.8	47.3	45.8	53.6	54.0	+0.4
Take heroin occasionally	75.6	75.6	71.9	71.4	70.9	70.9	72.2	69.8	71.8	70.7	69.8	68.2	74.6	73.8	-0.8
Take heroin regularly	87.2	88.6	86.1	86.6	87.5	86.2	87.5	86.0	86.1	87.2	86.0	87.1	88.7	88.8	+0.1
Try amphetamines once or twice	35.4	33.4	30.8	29.9	29.7	29.7	26.4	25.3	24.7	25.4	25.2	25.1	29.1	29.6	+0.5
Take amphetamines regularly	69.0	67.3	66.6	67.1	69.9	69.1	66.1	64.7	64.8	67.1	67.2	67.3	69.4	69.8	+0.4
Try barbiturates once or twice	34.8	32.5	31.2	31.3	30.7	30.9	28.4	27.5	27.0	27.4	26.1	25.4	30.9	29.7	-1.2
Take barbiturates regularly	69.1	67.7	68.6	68.4	71.6	72.2	69.9	67.6	67.7	68.5	68.3	67.2	69.4	69.6	+0.2
Try one or two drinks of an alcoholic beverage (beer, wine, liquor)	5.3	4.8	4.1	3.4	4.1	3.8	4.6	3.5	4.2	4.6	5.0	4.6	6.2	6.0	-0.2
Take one or two drinks nearly every day	21.5	21.2	18.5	19.6	22.6	20.3	21.6	21.6	21.6	23.0	24.4	25.1	26.2	27.3	+1.1
Take four or five drinks nearly every day	63.5	61.0	62.9	63.1	66.2	65.7	64.5	65.5	66.8	68.4	69.8	66.5	69.7	68.5	-1.2
Have five or more drinks once or twice each weekend	37.8	37.0	34.7	34.5	34.9	35.9	36.3	36.0	38.6	41.7	43.0	39.1	41.9	42.6	+0.7
Smoke one or more packs of cigarettes per day	51.3	56.4	58.4	59.0	63.0	63.7	63.3	60.5	61.2	63.8	66.5	66.0	68.6	68.0	-0.6
Approx. N =	(2804)	(2918)	(3052)	(3770)	(3250)	(3234)	(3604)	(3557)	(3305)	(3262)	(3250)	(3020)	(3315)	(3276)	

NOTE: Level of significance of difference between the two most recent classes: s = .05, ss = .01, sss = .001. NA indicates data not available.
[a] Answer alternatives were: (1) No risk, (2) Slight risk, (3) Moderate risk, (4) Great risk, and (5) Can't say, drug unfamiliar.

Trends in Proportion of Friends Disapproving of Drug Use

Young Adults in Modal Age Groups of 19–22 and 23–26

Q. *How do you think your close friends feel (or would feel) about you ...*	Age Group	Percentage saying friends disapprove[a] 1980	1981	1982	1983	1984	1985	1986	1987	1988	'87–'88 change
Trying marijuana once or twice	19–22	41.0	40.6	46.9	47.1	51.6	54.5	55.2	54.7	58.7	+4.0
	23–26					*47.7*	*47.0*	*49.1*	*53.9*	*58.2*	*+4.3*
Smoking marijuana occasionally	19–22	50.9	49.2	54.0	57.9	59.4	64.6	64.4	65.1	69.8	+4.7
	23–26					*54.3*	*56.4*	*57.1*	*63.1*	*68.1*	*+5.0*
Smoking marijuana regularly	19–22	70.3	75.2	75.7	79.5	80.0	82.7	83.5	84.8	86.9	+2.1
	23–26					*77.8*	*78.4*	*80.9*	*82.0*	*85.8*	*+3.8*
Trying LSD once or twice	19–22	87.4	90.5	88.0	89.3	89.3	91.1	90.5	91.8	90.8	−1.0
	23–26					*87.4*	*90.8*	*88.6*	*89.8*	*88.9*	*−0.9*
Trying cocaine once or twice	19–22	NA	NA	NA	NA	NA	NA	76.4	NA	84.8	NA
	23–26					*NA*	*NA*	*70.8*	*NA*	*81.4*	*NA*
Taking cocaine occasionally	19–22	NA	NA	NA	NA	NA	NA	84.9	NA	91.0	NA
	23–26					*NA*	*NA*	*81.7*	*NA*	*88.2*	*NA*
Trying an amphetamine once or twice	19–22	75.8	76.7	75.3	74.3	77.0	79.7	81.5	81.3	83.0	+1.7
	23–26					*78.4*	*79.1*	*76.7*	*81.7*	*83.0*	*+1.3*
Taking one or two drinks nearly every day	19–22	71.9	72.1	68.6	73.5	71.6	72.2	72.7	70.2	73.9	+3.7
	23–26					*63.6*	*66.8*	*67.7*	*68.3*	*69.2*	*+0.9*
Taking four or five drinks nearly every day	19–22	93.7	91.7	89.9	91.9	91.7	92.5	91.5	90.8	90.4	−0.4
	23–26					*90.8*	*90.2*	*92.5*	*92.8*	*93.7*	*+0.9*
Having five or more drinks once or twice each weekend	19–22	53.5	51.7	51.7	53.3	50.8	53.3	47.0	49.4	50.5	+1.1
	23–26					*53.8*	*57.3*	*61.0*	*57.2*	*58.8*	*+1.6*
Smoking one or more packs of cigarettes per day	19–22	75.6	75.1	75.4	78.5	76.2	79.7	77.7	78.6	80.2	+1.6
	23–26					*73.9*	*77.3*	*80.3*	*80.5*	*79.5*	*−1.0*
Approx. Wtd. N =	19–22	(569)	(597)	(580)	(577)	(582)	(556)	(577)	(595)	(584)	
	23–26					*(510)*	*(548)*	*(549)*	*(540)*	*(510)*	

NOTE: Level of significance of difference between the two most recent classes: s = .05, ss = .01, sss = .001. A blank cell indicates data not available.

[a] Answer alternatives were: (1) Don't disapprove, (2) Disapprove, and (3) Strongly disapprove. Percentages are shown for categories (2) and (3) combined.

Trends in Reported Availability of Drugs

Young Adults in Modal Age Groups of 19–22 and 23–26

Q. *How difficult do you think it would be for you to get each of the following types of drugs, if you wanted some?*	Age Group	Percentage saying "fairly easy" or "very easy"[a] 1980	1981	1982	1983	1984	1985	1986	1987	1988	'87 – '88 change
Marijuana	19–22	95.6	91.1	92.4	89.7	88.3	89.5	87.2	85.9	87.1	+1.2
	23–26					*92.5*	*88.8*	*88.8*	*90.3*	*86.9*	*−3.4*
Amyl & Butyl Nitrites	19–22								22.8	26.0	+3.2
	23–26								*23.1*	*28.0*	*+4.9*
LSD	19–22	39.6	38.4	35.1	31.8	32.7	29.6	30.5	29.9	33.9	+4.0
	23–26					*32.7*	*29.1*	*30.0*	*27.5*	*32.7*	*+5.2*
PCP	19–22								21.7	24.6	+2.9
	23–26								*21.2*	*27.6*	*+6.4s*
Some other psychedelic	19–22	42.1	37.7	33.5	31.0	28.9	28.7	26.3	27.5	28.7	+1.2
	23–26					*31.8*	*29.6*	*26.4*	*25.6*	*29.6*	*+4.0*
Cocaine	19–22	55.7	56.2	57.1	55.2	56.2	56.9	60.4	65.0	64.9	−0.1
	23–26					*63.7*	*67.2*	*65.8*	*69.0*	*71.7*	*+2.7*
Crack	19–22								41.9	47.3	+5.4
	23–26								*44.5*	*53.0*	*+8.5ss*
Cocaine powder	19–22								58.7	60.2	+1.5
	23–26								*64.9*	*69.1*	*+4.2*
Heroin	19–22	18.9	19.4	19.3	16.4	17.2	20.8	21.2	24.4	28.5	+4.1
	23–26					*18.6*	*18.1*	*21.0*	*22.3*	*28.4*	*+6.1s*
Some other narcotic (including methadone)	19–22	32.7	32.4	30.8	31.0	28.7	34.3	32.6	33.8	37.9	+4.1
	23–26					*32.8*	*32.1*	*33.6*	*32.2*	*35.9*	*+3.7*
Amphetamines	19–22	71.7	72.6	73.5	69.7	69.1	69.1	63.1	61.8	61.3	−0.5
	23–26					*65.8*	*66.0*	*64.5*	*65.3*	*62.2*	*−3.1*
Barbiturates	19–22	59.5	61.1	56.8	54.2	48.1	52.7	46.8	44.6	45.5	+0.9
	23–26					*52.7*	*47.7*	*46.4*	*45.9*	*47.4*	*+1.5*
Tranquilizers	19–22	67.4	62.8	62.0	62.3	52.5	55.6	52.9	50.3	50.0	−0.3
	23–26					*60.2*	*54.3*	*54.1*	*56.3*	*52.8*	*−3.5*
Approx. Wtd. N =	19–22	(582)	(601)	(582)	(588)	(559)	(571)	(592)	(581)	(568)	
	23–26					*(540)*	*(541)*	*(548)*	*(539)*	*(526)*	

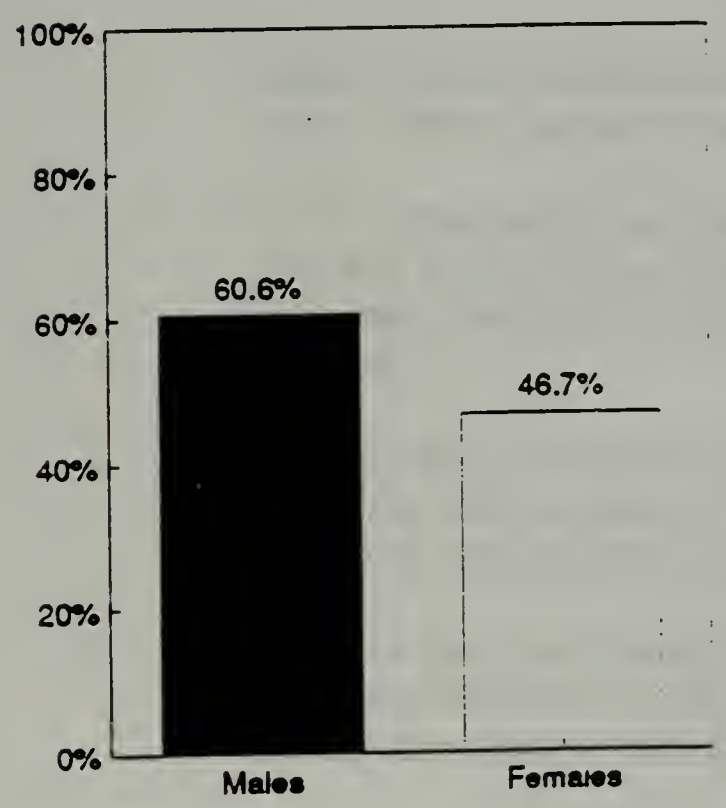
NOTE: Level of significance of difference between the two most recent classes: s = .05, ss = .01, sss = .001. A blank cell indicates data not available.

[a] Answer alternatives were: (1) Probably impossible, (2) Very difficult, (3) Fairly difficult, (4) Fairly easy, and (5) Very easy.

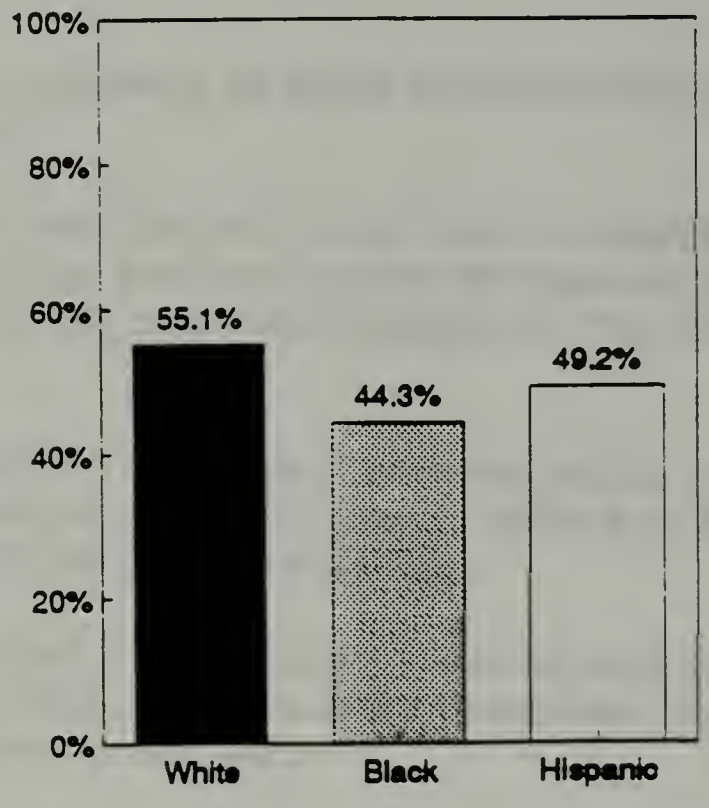
C. Demographic Differences in Past Month Alcohol Use (Figure 16)

- Males were significantly more likely than females to use alcohol.
- Whites were significantly more likely to have used alcohol in the past month than either blacks or Hispanics, and Hispanics were significantly more likely to have used alcohol in the past month than blacks.
- A significantly larger percentage of those in large metro areas used alcohol in the past month than those in small metro or nonmetro areas.
- Past month alcohol use in the South was significantly lower than in the other three regions.

Figure 16. Prevalence of Past Month Alcohol Use by Demographic Characteristics: 1988



a. Prevalence by Sex



b. Prevalence by Race/ Ethnicity

Source: NIDA, National Household Survey on Drug Abuse, 1988.

APPENDIX E:

INSTRUCTIONS FOR TELEPHONE SURVEYS

Source: Linney JA and Wandersman A, Prevention Plus III. Evaluating Alcohol and Other Drug Prevention Programs at the School and Community Level: A Four Step Guide to Useful Evaluation. 2nd Edition. Rockville, MD: NCADI, 1991. (Draft)

Telephone Surveys (M41)

Telephone surveys can be a useful way to get information and ideas from the community. There are several places in this Workbook where telephone surveys are suggested, e.g., to determine how a program is perceived by citizens or to measure awareness of a particular program.

Telephone surveys don't have to be elaborate to be useful in evaluation. The basic steps are:

1. Decide who you want to talk to, parents in your school, residents of the neighborhood, the whole community.

2. Draft a questionnaire asking the information you are interested in knowing. Be sure to keep the language straightforward and simple because people will need to understand the question when they hear it over the phone. Try to keep the whole telephone conversation to under 10 minutes.

3. Generate a pool of telephone numbers to choose from. If your group of interest is the parents of a school, the school may have those telephone numbers. If you are interested in the whole community you might use the telephone directory. Choose a sample of the telephone numbers on your list. There are sophisticated strategies for determining how to choose those numbers and how many. However, for our purposes it may be sufficient to take every tenth number on the list, for example. You should determine how many calls you can make given your resources. Suppose you can handle 100 calls and your list includes 2000 numbers. Then call every 20th number on the list.

4. Make a recording sheet for each number to be called so that the caller can write down the answers they hear.

5. Write a standard introduction and explanation for each caller to describe who you are, what you are doing and why, and how long the interview will take. Give each respondent a chance to say "yes I will participate," or "no I don't want to."

6. Recruit callers/interviewers. There are a number of volunteer groups who could make the calls such as PTA members, or student groups. Make sure that everyone making calls is pleasant and polite on the phone.

7. Pilot-test the questionnaire to find out if any questions are ambiguous or not understandable and to get some ideas about the kind of responses you will get. Modify the questionnaire based on this pilot test.

8. Train your interviewers in using the questionnaire. Have them practice interviewing each other.

9. Start calling.

APPENDIX F:

INTERNATIONAL CLASSIFICATION OF DISEASES

DRUG AND ALCOHOL RELATED DIAGNOSES

Source: McCarty D, Hofmann MB, Williams CN, Krakow M, Steriti L, "Indicators of Substant Use in Massachusetts." Massachusetts Department of Public Health, Division of Substance Abuse Services, 1990, from Codes for surgical categories from the International Classification of Diseases, 9th Revision, Clinical Modification.

ICD-9 CODES FOR SUBSTANCE USE INDICATOR PROJECT AS OF 1/17/90

USED TO SELECT RECORDS FOR HOSPITAL DISCHARGE & DEATH DATASETS

070.2	Viral hepatitis B with hepatic coma
070.3	Viral hepatitis B without mention of hep. coma
265.2	Pellagra
291.0	Alcohol withdrawal delirium
291.1	Alcohol amnestic syndrome
291.2	Other alcohol dementia
291.3	Alcohol withdrawal hallucinosis
291.4	Idiosyncratic alcohol intoxication
291.5	Alcoholic jealousy (paranoia, paranoid psychosis)
291.8	Other specified alcoholic psychosis
291.9	Unspecified alcoholic psychosis
292.0	Drug withdrawal syndrome
292.1	Paranoid and/or hallucinatory states induced by drugs
292.2	Pathological drug intoxication
292.8	Other specified drug-induced mental disorders
292.9	Unspecified drug-induced mental disorders
292.11	Drug-induced organic delusional sydrome
292.12	Drug-induced hallucinosis
292.81	Drug-induced delirium
292.82	Drug-induced dementia
292.83	Drug-induced amnestic syndrome
292.84	Drug-induced organic syndrome
292.85	Drug-induced organic personality sydrome
303.0	Acute alcohol intoxication
303.9	Other and unspecified alcohol dependence
304.0	Opioid type dependence
304.1	Barb and similarly acting sedative....
304.2	Cocaine Dependence
304.3	Cannibis dependence
304.4	Amph and other psycho-stimulant dependence
304.5	Hallucinogen dependence
304.6	Other specified drug dependence
304.7	Combinations of opioid type dependence with any other drug
304.8	Combinations of drug dependence excluding opioid drug
304.9	Unspecified drug dependence

305.0	Alcohol abuse
305.1	Tobacco use disorder
305.2	Cannibis abuse
305.3	Hallucinogen abuse
305.4	Barb and similarly acting sedative or hypnotic abuse
305.5	Opioid abuse
305.6	Cocaine abuse
305.7	Amphetamine or related acting sympathomimetic abuse
305.8	Antidepressant type abuse
305.9	Other, mixed or unspecified drug abuse
357.5	Alcoholic polyneuropathy
425.5	Alcoholic cardiomypathy
535.3	Alcoholic gastritis
571.0	Alcoholic fatty liver
571.1	Acute alcoholic hepatitis
571.2	Alcoholic cirrhosis of the liver
571.3	Alcoholic liver damage, unspecified
571.4	Chronic hepatitis
571.5	Cirrhosis of liver without mention of alcohol
571.6	Biliary cirrhosis
571.8	Other Chronic nonalcoholic liver disease
571.9	Unspecific chronic liver disease without mention of alcohol
572.3	Portal hypertension
573.3	Hepatitis, unspecified
760.71	Fetal alcohol syndrome
760.72	Fetal disorder — narcotic induced
760.73	Fetus disorder — hallucinogenic agents induced
790.3	Excessive level of blood alcohol

965.00	Poisoning by opium-unspecified
965.01	Poisoning by heroin
965.02	Poisoning by methadone
965.09	Poisoning by other analgesics, antipyetics, or antirheumatics
967.0	Poisoning by barbiturates
967.1	Poisoning by chloral hydrate group substances
967.2	Poisoning by paraldehyde
967.3	Poisoning by bromine compounds
967.4	Poisoning by Methaqualone compounds
967.5	Poisoning by Glutethimide group substances
967.6	Poisoning by Mixed sedatives not elsewhere classified
967.8	Poisoning by other sedatives and hynotics
967.9	Poisoning by unspecified sedatives and hypnotics
968.5	Poisoning by surface and infiltration anesthetics
969.0	Poisoning by antidepressants
969.1	Poisoning by phenothiazine-based tranquilizers
969.2	Poisoning by butyrophenone-based tranquilizers
969.3	Poisoning by other anti-psychotic and neuroleptic tranquilizers
969.4	Poisoning by benzodiazepine tranquilizers
969.5	Poisoning by other tranquilizers
969.6	Poisoning by hallucinogens
969.7	Poisoning by psychostimulants
969.8	Poisoning by other specified psychotropic agents
969.9	Poisoning by unspecified psychotropic agents
970.1	Poisoning by opiate antagonists
977.3	Alcohol deterrents
980.0	Ethyl alcohol
980.1	Methyl alcohol
980.2	Isopropyl alcohol
980.8	Other specified alcohol
980.9	Unspecified alcohol
E850.0	Accidental poisoning by heroin
E850.1	Accidental poisoning by Methadone
E850.2	Accidental poisoning by other opiates and related narcotics
E851	Accidental poisoning by Barbiturates

E852.0 Accidental poisoning by chloral hydrate group substances
E852.1 Accidental poisoning by paraldehhyde
E852.2 Accidental poisoning by bromide compounds
E852.3 Accidental poisoning by methaqualone compounds
E852.4 Accidental poisoning by glutethimide group substances
E852.5 Accidental poisoning by mixed sedatives not mentioned
E852.8 Accidental poisoning by other specified sedatives/hynotics
E852.9 Accidental poisoning by unspecified tranquilizers

E853.0 Accidental poisoning by phenothiazine-based tranquilizers
E853.1 Accidental poisoning by butyrophenone-based tranquilizers
E853.2 Accidental poisoning by bensodiazepine-based tranquilizers
E853.8 Accidental poisoning by other specified tranquilizers
E853.9 Accidental poisoning by unspecified tranquilizers

E854.0 Accidental poisoning by psychotropic agents
E854.1 Accidental poisoning by psychodysleptics
E854.2 Accidental poisoning by psychostimulants
E854.3 Accidental poisoning by other central nervous system stimulants

E855.2 Accidental poisoning by local anesthetics (cocaine)

E860.0 Accidental poisoning by alcoholic beverages
E860.1 Other ar.i unspecified ethyl alc and its products
E860.2 Methyl alcohol
E860.3 Isopropyl alcohol
E860.8 Other specified alcohol
E860.9 Unspecified alcohol

E950.0 Suicide by analgesics, antipyretics, and antirheumatics
E950.1 Suicide by barbiturate
E950.2 Suicide by other sedative and hypnotic
E950.3 Suicide by tranquilizers and other medicinal substances
E950.4 Suicide by other specified drugs and medicinal substances
E950.5 Suicide by other unspecified drugs and medicinal substances

Poisoning with undetermined intention (accidental or purposely inflicted)

E980.0 Poisoning by analgesics
E980.1 Poisoning by barbiturates
E980.2 Poisoning by other sedatives
E980.3 Poisoning by tranquilizers
E980.4 Poisoning by other specified drug or medicinal substance
E980.5 Poisoning by othre unspecified drug or medicinal substance

APPENDIX G:

FATAL ACCIDENT REPORTING SYSTEM FORMS

Source: FARS. Fatal Accident Reporting System. U.S. Department of Transportation, National Highway Traffic Safety Administration, DOT-HS-806-251, 1983.

100-A EXHIBIT FARS CODING FORMS (PERSON LEVEL)

US Department of Transportation
National Highway Traffic Safety Administration

1987 Fatal Accident Reporting System (FARS)
PERSON LEVEL

O M B No 2127-0006
CODED BY: _____
DATE CODED _____
STATE CASE NO _____

CASE NUMBER STATE (GSA CODES) 1 2	CONSECUTIVE NUMBER 3 4 5 6	TRANSACTION CODE 7 8 (3)	CARD NO. 9 (1)	VEHICLE NUMBER (Assigned by Arrives) 10 11 (1)	PERSON NUMBER 12 13
		31 – Original Submission 32 – Update or Change		00 – Non-Motorist	(Assigned by Arrives)

NON-MOTORIST STRIKING VEHICLE NUMBER 14 15	AGE 16 17	SEX 18
Assigned Vehicle Number Except: 99 – Unknown	Actual Value 00 – Up to One Year 97 – Ninety-Seven Years or Older 99 – Unknown	1 – Male 2 – Female 9 – Unknown

PERSON TYPE 19

1 – Driver of a Motor Vehicle in Transport
2 – Passenger of a Motor Vehicle in Transport
3 – Occupant of a Motor Vehicle Not in Transport
4 – Occupant of a Non-Motor Vehicle Transport Device
5 – Non-Occupant – Pedestrian
6 – Non-Occupant – Bicyclist
7 – Non-Occupant – Other Cyclist
8 – Non-Occupant – Other or Unknown
9 – Unknown Occupant Type in a Motor Vehicle in Transport

SEATING POSITION 20 21

00 – Non-Motorist
11 – Front Side – Left Side (Driver's Side)
12 – – Middle
13 – – Right Side
19 – – Other
19 – – Unknown
21 – Second Seat – Left Side
22 – – Middle
23 – – Right Side
29 – – Other
29 – – Unknown
31 – Third Seat – Left Side
32 – – Middle
33 – – Right Side
39 – – Other
39 – – Unknown
41 – Fourth Seat – Left Side
42 – – Middle
43 – – Right Side
49 – – Other
49 – – Unknown
98 – Sleeper Section of Cab (Truck)
91 – Other Passenger in Enclosed Passenger or Cargo Area
92 – Other Passenger in Unenclosed Passenger or Cargo Area
93 – Other Passenger in Passenger or Cargo Area, Unknown Whether or Not Enclosed
94 – Trailing Unit
95 – Riding on Vehicle Exterior
99 – Unknown

MANUAL (ACTIVE) RESTRAINT SYSTEM – USE 22

0 – None Used - Vehicle Occupant/Not Applicable - Non-Motorist
1 – Shoulder Belt
2 – Lap Belt
3 – Lap and Shoulder Belt
4 – Child Safety Seat
5 – Motorcycle Helmet
6 – Protective Helmet – Type Unknown or Other including Other Helmet
9 – Unknown

AUTOMATIC (PASSIVE) RESTRAINT SYSTEM – FUNCTION 23

0 – Not Equipped or Non-Motorist
1 – Automatic Belt in Use
2 – Automatic Belt Not in Use
3 – Occupant Air Bag
4 – Non-Motorist Air Bag
9 – Unknown

NON-MOTORIST LOCATION 24 25

00 – Not Applicable – Vehicle Occupant
01 – Intersection – In Crosswalk
02 – Intersection – On Roadway, Not in Crosswalk
03 – Intersection – On Roadway, Crosswalk Not Available
04 – Intersection – On Roadway, Crosswalk Availability Unknown
05 – Intersection – Not on Roadway
09 – Intersection – Unknown
10 – Non-Intersection – In Crosswalk
11 – Non-Intersection – On Roadway, Not in Crosswalk
12 – Non-Intersection – On Roadway, Crosswalk Not Available
13 – Non-Intersection – On Roadway, Crosswalk Availability Unknown
14 – Non-Intersection – In Parking Lane
15 – Non-Intersection – On Road Shoulder
16 – Non-Intersection – Bike Path
17 – Non-Intersection – Outside Trafficway
18 – Non-Intersection – Other, Not on Roadway
19 – Non-Intersection – Unknown
99 – Unknown

EJECTION 26

0 – Not Ejected
1 – Totally Ejected
2 – Partially Ejected
9 – Unknown

EXTRICATION 27

0 – Not Extricated
1 – Extricated
9 – Unknown

METHOD OF ALCOHOL DETERMINATION (By Police) 28

1 – Evidential Test (Breath, Blood, Urine)
2 – Preliminary Breath Test (PBT)
3 – Behavioral
4 – Passive Alcohol Sensor (PAS)
5 – Observed
6 – Other (e.g. Saliva test)
9 – Not Reported

POLICE REPORTED ALCOHOL INVOLVEMENT 29

0 – No (Alcohol Not Involved)
1 – Yes (Alcohol Involved)
9 – Not Reported
9 – Unknown (Police Reported)

ALCOHOL TEST RESULT 30 31

Actual Value (Decimal Implied before First Digit (0.xx)
96 – Test Refused
98 – None Given
97 – AC Test Performed, Results Unknown
99 – Unknown

DRUGS NOTED IN TOXICOLOGY REPORT (Other than alcohol) 32

0 – No blood test given

Blood Test given, results known
1 – No drugs reported
2 – Drugs reported (including marijuana, cannabis)
3 – Not tested for drugs

Blood Test given, results unknown
7 – Test for drugs, results unknown
9 – Unknown if Tested for Drugs
9 – Unknown if blood test given

INJURY SEVERITY 33

0 – No Injury (O)
1 – Possible Injury (C)
2 – Nonincapacitating Evident Injury (B)
3 – Incapacitating Injury (A)
4 – Fatal Injury (K)
5 – Injured, Severity Unknown
6 – Died Prior to Accident
9 – Unknown

TAKEN TO HOSPITAL OR TREATMENT FACILITY 34

0 – No
1 – Yes
9 – Unknown

DEATH DATE 35 40

000000 – Not Applicable
999999 – Unknown

MONTH DAY YEAR

DEATH TIME 41 44

Military Time Format:

9999 – Not Applicable
9999 – Unknown

RELATED FACTORS 45 46 47 48 49 50

See Instruction Manual
"Related Factors – PERSON LEVEL"

HS Form 214B (Rev. 12/88)

100-A EXHIBIT FARS CODING FORMS (VEHICLE/DRIVER LEVEL)

US Department of Transportation
National Highway Traffic Safety Administration

1987 Fatal Accident Reporting System (FARS)
VEHICLE/DRIVER LEVEL

Form Approved
O M B No 2127-0006

CODED BY _____
DATE CODED _____
STATE CASE NO _____

CASE NUMBER STATE (GSA CODES) 1 2 | CONSECUTIVE NUMBER 3 4 5 6 | TRANSACTION CODE (21 – Original Submission, 22 – Updates or Change) 7 2 8 | CARD NO. 9 1 | VEHICLE NUMBER (Assigned by Analyst) 10 11

VEHICLE MAKE (See Instruction Manual) 14 15 | VEHICLE MODEL (See Instruction Manual) 16 17 | BODY TYPE (See Instruction Manual) 18 19 | MODEL YEAR (Actual Value Entered; 99 – Unknown) 20 21

VEHICLE IDENTIFICATION NO. (Actual Value Entered; Zeros Fill if no VIN; Nines Fill if Unknown) 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38

REGISTRATION STATE 39 40
(GSA CODES Except
00 – Not Applicable
92 – Any Registration
93 – Multiple States Reg In-State
94 – Multiple States Reg Out-of-State
95 – U S Government Tags
96 – Military Vehicle
97 – Foreign Countries
98 – Other Registration
99 – Unknown)

ROLLOVER 41
(0 – No Rollover
1 – First Event
2 – Subsequent Event)

JACKKNIFE 42
(0 – Not an Articulated Vehicle
1 – No
2 – First Event
3 – Subsequent Event)

TRAVEL SPEED 43 44
(Actual Miles Per Hour Entered
00 – Stopped Vehicle
97 – Nonmotorized MPH or Greater
98 – Unknown)

HAZARDOUS CARGO 45
(0 – No
1 – Yes
9 – Unknown)

VEHICLE TRAILERING 46
(0 – No
1 – Yes, One Trailing Unit
2 – Yes, Two Trailing Units
3 – Yes, Three or More Trailing Units
4 – Yes, Number of Trailing Units Unknown
9 – Unknown)

SPECIAL USE 47
(0 – No Special Use
1 – Taxi
2 – Vehicle Used as School Bus
3 – Vehicle Used as other Bus
4 – Military
5 – Police
6 – Ambulance
7 – Fire Truck
9 – Unknown)

EMERGENCY USE 48
(0 – No
1 – Yes)

IMPACT POINT – INITIAL 49 50
(00 – Non-Collision
01 12 – Clock Points
13 – Top
14 – Undercarriage
15 – Undercarriage
16 – Overside
99 – Unknown)

IMPACT POINT – PRINCIPAL 51 52
(00 – Non-Collision
01 12 – Clock Points
13 – Top
14 – Undercarriage
15 – Undercarriage
16 – Overside
99 – Unknown)

EXTENT OF DEFORMATION 53
(0 – None
1 – Minor
2 – Functional
3 – Disabling
4 – Severe
9 – Unknown)

VEHICLE ROLE 54
(0 – Non-Collision
1 – Striking
2 – Struck
3 – Both
9 – Unknown)

MANNER OF LEAVING SCENE 55
(1 – Driven
2 – Towed Away
3 – Abandoned
9 – Unknown)

FIRE OCCURRENCE 56
(0 – No Fire
1 – Fire Occurred in Vehicle During Accident)

NUMBER OF OCCUPANTS 57 58
(Actual Value if Total Known
00 – 99 or More
97 – Unknown – Only Injured Reported
99 – Unknown)

RELATED FACTORS 59 60 61 62
(See Instruction Manual "Related Factors – VEHICLE LEVEL")

VEHICLE MANEUVER 63 64
(See Instruction Manual)

MOST HARMFUL EVENT 65 66
(See Instruction Manual)

Card No. 1 / 2

DRIVER PRESENCE 14
(1 – Driver Involved
2 – Driver Involved Vehicle
3 – Unknown if Driver Left Scene
9 – Unknown)

LICENSE STATE (GSA CODES) 15 16
(Except
56 – Mexico
59 – Canada
98 – Mexico
97 – Other Foreign Countries
99 – Unknown)

DRIVER LICENSE STATUS (Impression of Vehicle Driver) 17
NO VALID LICENSE
0 – Not Licensed
1 – Suspended
2 – Revoked
3 – Expired
4 – Cancelled or Denied
VALID LICENSE
5 – Class Class License
6 – Multiple Class License
7 – Learner's Permit
8 – Temporary
9 – Unknown

DRIVER LICENSE TYPE COMPLIANCE (For This Class Vehicle) 18
0 – Not Licensed
1 – No License Required for This Class Vehicle
2 – No Valid License for This Class Vehicle
3 – Valid License for This Class Vehicle
9 – Unknown

COMPLIANCE WITH LICENSE RESTRICTIONS 19
0 – No Restrictions
1 – Restrictions Complied With
2 – Restrictions Not Complied With
3 – Restrictions, Compliance Unknown
9 – Unknown

VIOLATIONS CHARGED 20
0 – None
1 – Alcohol or Drugs
2 – Speeding
3 – Alcohol or Drugs and Speeding
4 – Reckless Driving
5 – Driving With a Suspended or Revoked License
6 – Other Moving Violation
7 – Non-Moving Violation
8 – Violation, Type Unknown or Other Violation
9 – Unknown

PREVIOUS ACCIDENTS 21 22
(Actual Value Entered
00 – None
99 – Unknown)

PREVIOUS RECORDED SUSPENSIONS AND REVOCATIONS 23 24
(Actual Value Entered
00 – None
99 – Unknown)

PREVIOUS DWI CONVICTIONS 25 26
(Actual Value Entered
00 – None
99 – Unknown)

PREVIOUS SPEEDING CONVICTIONS 27 28
(Actual Value Entered
00 – None
99 – Unknown)

PREVIOUS OTHER HARMFUL MV CONVICTIONS 29 30
(Actual Value Entered
00 – None
99 – Unknown)

DATE OF LAST ACCIDENT, SUSPENSION, OR CONVICTION 31 32 33 34
Mo. Yr.
(00 – No Record
99 – Unknown)

DATE OF FIRST ACCIDENT, SUSPENSION, OR CONVICTION 35 36 37 38
Mo. Yr.
(00 – No Record
99 – Unknown)

DRIVER ZIP CODE 39 40 41 42 43
(Actual Value Entered
None and Unknown)

RELATED FACTORS 44 45 46 47 48 49
(See Instruction Manual "Related Factors – DRIVER LEVEL")

HS Form 214A (Rev. 12/86)

100-A EXHIBIT FARS CODING FORMS (ACCIDENT LEVEL)

US Department of Transportation
National Highway Traffic Safety Administration

1987 Fatal Accident Reporting System (FARS)
ACCIDENT LEVEL

Form Approved thru O M B No 2127-0006

CODED BY _____

DATE CODED _____

STATE CASE NO _____

CASE NUMBER STATE (GSA CODES) [1 2]

[3 4 5 6]

TRANSACTION CODE [7 8] = 1
11 – Original Submission
12 – Update or Change
13 – Delete
14 – List

CARD NO [9] = 1

CITY [14 15 16 17]

COUNTY [18 19 20]

DATE MONTH DAY YEAR [21 22 23 24 25 26] = 8 7

TIME [27 28 . 29 30]
Military Time
9999 – Unknown

Number of Vehicle Forms Submitted [31 32]

Number of Person Forms Submitted [33 34]

FEDERAL-AID SYSTEM [35]
1 – Interstate
2 – Federal Aid Primary (other than Interstate)
3 – Federal Aid Urban
4 – Federal Aid Secondary (rural area)
5 – Non Federal Aid
9 – Unknown

ROADWAY FUNCTION CLASS [36 37]
RURAL
01 Principal Arterial - Interstate
02 Principal Arterial - Other
03 Minor Arterial
04 Major Collector
05 Minor Collector
06 Local Road or Street
09 Unknown Rural
URBAN
11 Principal Arterial - Interstate
12 Principal Arterial - Other
13 Other Principal Arterial
14 Minor Arterial
16 Collector
18 Local Road or Street
19 Unknown Urban
88 UNKNOWN

ROUTE SIGNING [38]
1 – Interstate
2 – U S Highway
3 – State Highway
4 – County Road
LOCAL STREET
5 Township
6 Municipality
8 – Other
9 – Unknown

TRAFFICWAY IDENTIFIER [39 40 41 42 43 44 45 46]
Actual Posted Number, Assigned Number, or Common Name of the Posted or Assigned Number
Except: None PSI or Unknown

MILEPOINT [47 48 49 50 51 52]
Actual to Nearest 1 Mile Ascending Direction
Except: 0000 – None
9999 – Unknown

SPECIAL JURISDICTION [54]
0 – No Special Jurisdiction
1 – National Park Service
2 – Military
3 – Indian Reservation
4 – College/University Campus
5 – Other Federal Properties
8 – Other
9 – Unknown

FIRST HARMFUL EVENT [55 56]
(See Instruction Manual)

MANNER OF COLLISION [57]
0 – Not Collision with Motor Vehicle in Transport
1 – Rear-End
2 – Head On
3 – Rear-to-Rear
4 – Angle
5 – Sideswipe, Same Direction
6 – Sideswipe, Opposite Direction
8 – Other
9 – Unknown

RELATION TO JUNCTION [58]
1 – Non-Junction
2 – Intersection
3 – Intersection Related
4 – Intersection Area
5 – Driveway, Alley Access, etc.
6 – Entrance/Exit Ramp
7 – Rail Grade Crossing
8 – In Crossover
9 – Unknown

RELATION TO ROADWAY [59]
1 – On Roadway
2 – Shoulder
3 – Median
4 – Roadside
5 – Outside Right-of-Way
6 – Off Roadway – Location Unknown
7 – In Parking Lane
8 – Gore
9 – Unknown

TRAFFICWAY FLOW [60]
1 – Not Physically Divided (Two Way Trafficway)
2 – Divided Highway, Median Strip (Without Traffic Barrier)
3 – Divided Highway, Median Strip (With Traffic Barrier)
4 – One Way Trafficway
9 – Unknown

NUMBER OF TRAVEL LANES [61]
Actual Value Except:
7 – Seven or more lanes
9 – Unknown

SPEED LIMIT [62 63]
Actual Miles Per Hour Except:
00 – No Statutory Limit
98 – Unknown

ROADWAY ALIGNMENT [64]
1 – Straight
2 – Curve
9 – Unknown

ROADWAY PROFILE [65]
1 – Level
2 – Grade
3 – Hillcrest
4 – Sag
9 – Unknown

ROADWAY SURFACE TYPE [66]
1 – Concrete
2 – Blacktop (Bituminous)
3 – Brick or Block
4 – Slag, Gravel or Stone
8 – Dirt
9 – Other
9 – Unknown

ROADWAY SURFACE CONDITION [67]
1 – Dry
2 – Wet
3 – Snow or Slush
4 – Ice
5 – Sand, Dirt, Oil
9 – Other
9 – Unknown

TRAFFIC CONTROL DEVICE [68 69]
(See Instruction Manual)

TRAFFIC CONTROL DEVICE FUNCTIONING [70]
0 – No Controls
1 – Device Not Functioning
2 – Device Functioning - Functioning Improperly
3 – Device Functioning Properly
9 – Unknown

HIT AND RUN [71]
0 – No Hit and Run
1 – Hit Motor Vehicle in Transport
2 – Hit Parked Vehicle or Object
3 – Hit Pedestrian or Non-Motorist
9 – Unknown

LIGHT CONDITION [72]
1 – Daylight
2 – Dark
3 – Dark but Lighted
4 – Dawn
5 – Dusk
9 – Unknown

ATMOSPHERIC CONDITIONS [73]
1 – No Adverse Atmospheric Conditions
2 – Rain
3 – Sleet
4 – Snow
5 – Fog
6 – Rain and Fog
7 – Sleet and Fog
8 – Other Severe Weather Condition (Blowing Sand or Dust)
9 – Unknown

CONSTRUCTION/MAINTENANCE ZONE [74]
0 – None
1 – Construction
2 – Maintenance
3 – Utility
4 – Work Zone, Type Unknown

NOTIFICATION TIME EMS [75 76 77 78]
Military Time Except:
0000 – Not Reported
9999 – Unknown

ARRIVAL TIME EMS [79 80 81 82]
Military Time Except:
0000 – Not Reported
9999 – Unknown

EMS TIME AT HOSPITAL [83 84 85 86]
Military Time Except:
0000 – Not Reported
9999 – Unknown

SCHOOL BUS RELATED [87]
0 – No
1 – Yes

RELATED FACTORS [88 89 90 91 92 93]

RAIL GRADE CROSSING IDENTIFIER [94 95 96 97 98 99 100]
(See Instruction Manual)

CARD NO [9] = 2

ADDITIONAL STATE INFORMATION (See Instruction Manual) [10 11 12 13 14 15 16 17 18 19 20 21 22 23]

Number of Non-Motorist Persons Submitted [24 25]

HS Form 214 (Rev. 12/86)

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